



Docket No. 8733.464.00-US
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Dong Hoon LEE et al.

Customer No. 30827

Application No. 09/901,079

Confirmation No. 7082

Filed: July 10, 2001

Art Unit: 2871

For: IN-PLANE SWITCHING LIQUID CRYSTAL
DISPLAY DEVICE AND METHOD FOR
FABRICATING THE SAME

Examiner: Timothy L. Rude

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPELLANT'S REPLY BRIEF

Sir:

In response to an Examiner's Answer that was mailed on May 29, 2007, Appellants hereby submit this Reply Brief.

This brief contains items under the following headings as required by 37 C.F.R. § 41.37(c):

- I. Status of Claims**
- II. Grounds of Rejection to be Reviewed on Appeal**
- III. Argument**

I. STATUS OF CLAIMS

Total Number of Claims in the Application

There are 28 claims pending in the application.

Current Status of Claims

Claims canceled: 11-14, 25-28.

Claims withdrawn from consideration but not canceled: None.

Claims pending: 1-10, 15-24 and 29-36

Claims allowed: None.

Claims rejected: 1-10, 15-24 and 29-36

Claims on Appeal: The claims on appeal are claims 1-10, 15-24 and 29-36.

II. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

The Examiner rejected claims 1, 7–10, 15–16, 24, and 29 under 35 U.S.C. § 103(a) as being unpatentable over Applicant’s Related Art (hereinafter “ARA”) in view of U.S. Patent No. 6,507,382 to Sakamoto et al. (hereinafter “Sakamoto”) and U.S. Patent No. 5,581,382 to Kim (hereinafter “Kim”). The Examiner rejected claims 2–3 and 17–20 under 35 U.S.C. § 103(a) as being unpatentable over ARA in view of Sakamoto and Kim, and further in view of U.S. Patent No. 6,356,328 B1 to Shin et al. (hereinafter “Shin”). The Examiner rejected claims 4 and 23 under 35 U.S.C. § 103(a) as being unpatentable over ARA in view of Sakamoto and Kim, and further in view of U.S. Patent No. 6,163,355 to Chang et al. (hereinafter “Chang”). The Examiner rejected claims 5–6 and 21–22 under 35 U.S.C. § 103(a) as being unpatentable over ARA in view of Sakamoto and Kim, and further in view of U.S. Patent No. 6,414,729 B1 to Akiyama et al. (hereinafter “Akiyama”). The Examiner rejected claims 30 and 31 under 35 U.S.C. § 103(a) as being unpatentable over ARA in view of Sakamoto and Kim, and further in view of U.S. Patent No. 6,300,995 B1 to Wakagi et al. (hereinafter “Wakagi”). The Examiner rejected claims 32 and 33 under 35 U.S.C. § 103(a) as being unpatentable over ARA in view of Sakamoto, Kim, and Wakagi, and further in view of Shin. The Examiner rejected claim 34 under 35 U.S.C. § 103(a) as being unpatentable over ARA in view of Sakamoto, Kim, and Wakagi, and further in view of Chang. The Examiner rejected claims 35 and 36 under 35 U.S.C. § 103(a) as being unpatentable over ARA in view of Sakamoto, Kim, and Wakagi, and further in view of Akiyama.

III. ARGUMENT

- A. The Examiner improperly rejected claim 1, 7-10, 15-16, 24 and 29 under 35 U.S.C. § 103(a) as being unpatentable over ARA in view of Sakamoto and Kim.

Applicants respectfully assert that the rejection of independent claim 1 stated by the Examiner does not satisfy the burden of establishing *prima facie* obviousness under 35 U.S.C. § 103(a). (MPEP 2142).

Applicants respectfully assert that the Examiner has not established *prima facie* obviousness, for the reasons stated in the Appeal Brief of December 21, 2006 and for these additional two reasons: first, the Examiner has not offered a valid reason to combine ARA and Sakamoto; second, even if there is a valid reason to combine, ARA, Sakamoto and Kim, alone or in combination, do not teach all of the elements of claim 1.

First, The Examiner has not offered a valid reason to combine ARA and Sakamoto. The Examiner must provide a reason for combining the elements in the manner claimed. *KSR International Co. v. Teleflex Inc. et al.* The Examiner's Brief fails to provide a reason for combining the elements in the manner claimed for two reasons. First, the Examiner's Brief improperly attempts to supplement the reason to combine stated during prosecution and should not be considered by the Board. Second, the reason to combine stated during prosecution is not a legally sufficient reason for combining the ARA and Sakamoto in the manner claimed.

Initially, the Examiner's Answer improperly attempts to supplement the reason to combine stated during prosecution. In particular, page 20 states that adjusting the electrode height above the substrate with insulating layers is a well known practice for gaining improved switching of the liquid crystal layer for improved display performance and that moving the electrodes closer to the liquid crystal layer and farther away from the underlying scan and data lines improves electrostatic field isolation by getting them farther away from the electrostatic noise of underlying electrical conductors. Page 21 states that this beneficial effect is applicable to all active matrix liquid crystal displays regardless of electrode configuration and that the Examiner considers Sakamoto to be a robust teaching rendering the addition of the interstitial layers obvious to one of ordinary skill in the art, and one of ordinary skill in the art would perceive the strong motivation to combined given the teachings of Sakamoto. Applicants object to each of these statements for three reasons. First, these statements are factually unsupported

arguments. The Examiner's Brief presents only assertions and no evidence that any of these statements are well-known or even known at all. Second, the Examiner does not even allege that any of these statements were known at the time of the present invention. Third, each of these statements constitute factual findings that the Applicants have had no opportunity to rebut with Applicant's own factual finding. Applicants note that 37 CFR 41.41 (a)(2) prohibits the Applicant from introducing any additional evidence with this Reply Brief. Accordingly, Applicants respectfully submit that the statements in the Examiner's Answer cannot be relied upon to supplement the reason to combine stated by the Examiner during prosecution.

Next, the reason to combine stated during prosecution is not a legally sufficient reason for combining the ARA and Sakamoto in the manner claimed. As stated by the Examiner on page 20 of the Examiner's Answer, "Sakamoto is applied for merely the addition of interstitial insulating layers". The reason to combine stated during prosecution and repeated on page 6 of the Examiner's Answer is to allow for easy manufacture of a color display that prevents color unevenness for better display performance. Therefore, in order to be a legally sufficient reason to combine, Sakamoto must correlate the addition of interstitial insulating layers with the allowing for easy manufacture of a color display that prevents color unevenness for better display performance. Applicants respectfully submit that Sakamoto does not make such a correlation. Instead, Sakamoto teaches that the way to prevent color unevenness is by disposing a shield or common electrode between the color filter and a liquid crystal layer in order to reduce the effects of accumulated charge in the color filter (col. 4 lines 31-39). Therefore, the reason to combine stated during prosecution is not a legally sufficient reason for combining the ARA and Sakamoto in the manner claimed. Accordingly, Applicants respectfully request withdrawal of the rejections of claims 1, 7-10, 15-16, 24 and 29.

Second, ARA, Sakamoto and Kim, alone or in combination, do not teach all of the elements of claim 1. ARA, Sakamoto and Kim, alone or in combination, fail to teach or suggest "wherein the gate insulation layer and the first passivation layer include a plurality of common line contact holes" and "wherein each common electrode is electrically connected with the common line through a corresponding common line contact hole". Applicants respectfully submit that at least these features cannot be obtained by combining the structure of APA with the interstitial layers of Sakamoto.

Accordingly, Applicants respectfully submit that claim 1, and its dependent claims 7–10, and 15, are allowable over any combination of ARA, Sakamoto, and Kim.

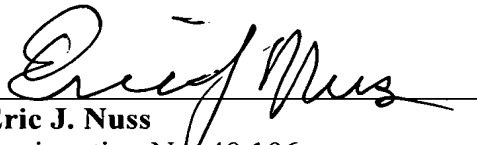
Applicants respectfully traverse the rejection of independent claim 16 and request reconsideration. The Examiner rejects claim 16, stating that “the steps of manufacturing comprising forming would have been obvious given the structure above.” Applicants respectfully submit that claim 16, and its dependent claims 24 and 29, are allowable for the same or similar reasons as those regarding claim 1 above.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. § 1.136, and any additional fees required under 37 C.F.R. § 1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

Dated: July 24, 2007

By



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